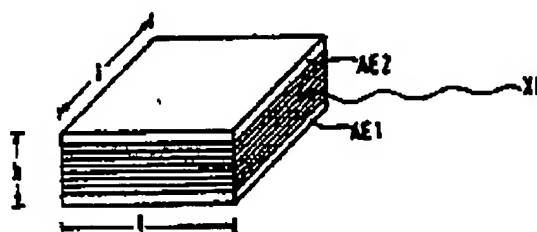


**An X-ray detector having intermetallic semiconductor element - for conversion of X-radiation into an electric signal and being highly efficient, position sensitive and suitable for computer tomography**

**Patent number:** DE4229315  
**Publication date:** 1994-03-03  
**Inventor:** BAYER EBERHARD DR RER NAT [DE]; SCHOCK HANS-W DR ING [DE]  
**Applicant:** SIEMENS AG [DE]  
**Classification:**  
- **International:** H01L31/0256; H01L31/0224; H01L31/06; G01T1/24; G01N23/083  
- **European:** H01L31/08C; H01L31/10  
**Application number:** DE19924229315 19920902  
**Priority number(s):** DE19924229315 19920902

**Abstract of DE4229315**

An X-ray detection element consisting of at least one photoconducting, laminar formed, intermetallic, semiconductor element (HL1, HL2). The semiconductor element is bonding on its main (i.e. top and bottom) surface by plate type electrode (E1, E2). Radiation enters through the forward side of the element. The semiconductor material includes a copper-pyrite compound and an energy band of at least 1eV. The semiconductor elements can be combined in electrically connected stacks of several single elements. **USE/ADVANTAGE** - The detector elements are for conversion of X-radiation into corresponding electrical signals. They are particularly useful in computer tomography. The conversion of X-radiation to electric signal is highly efficient, position sensitivity is possible and the detector elements are easy to manufacture.



Data supplied from the [esp@cenet](mailto:esp@cenet) database - Worldwide